

CLAIMS

What is claimed is:

1. A system for writing position information to a rotating medium, comprising:

5 a rotatable medium capable of storing information written to the rotatable medium, the rotatable medium having an inner diameter and an outer diameter;

 a write element capable of writing information to the rotatable medium; and

10 a control mechanism adapted to rotate the rotatable medium and position the write element relative to the rotatable medium, such that the write element can:

 write at least a portion of a first servo burst during a first pass of a write element over a rotating medium;

15 trim at least a portion of a first servo burst during a second pass of the write element; and

 write at least a portion of a second servo burst during one of the second pass and a third pass of the write element, the pass used to write at least a portion of the second servo burst being determined by the location of the second servo burst relative to at least one of the inner diameter and outer diameter.

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2. A system according to claim 1, wherein:

25 at least a portion of a second servo burst is written on the third pass only if the second burst defines a data track centerline.

3. A system according to claim 1, wherein:

 the number of portions used to write the second burst increases toward the outer diameter.

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4. A system according to claim 1, wherein:
the rotatable medium is selected from the group consisting of
magnetic disks, optical disks, and laser-recordable disks.

5. A system according to claim 1, wherein:
each of the first portion and second portion comprises a servo burst.

6. A system according to claim 1, further comprising:
a read element adapted to read the first servo burst and second
servo burst on a subsequent pass over the rotatable medium.

7. A system according to claim 6, further comprising:
a read/write head containing the read element and the write
element.

8. A system according to claim 7, further comprising:
read circuitry adapted to accept information from the read element
and determine the position of the read/write head.

9. A system according to claim 1, wherein:
the write element is further capable of trimming a portion of the first
servo burst such that the first servo burst has a width approximately equal
to the width of a track of servo data.

10. A system according to claim 1, wherein:
the write element is further capable of writing the first and second
servo bursts in a servo wedge on the rotatable storage medium.

11. A system according to claim 1, wherein:
the write element is further capable of trimming a edge of the first
servo burst and writing an adjacent edge of the second servo burst in order

to define the position of a centerline of a data track on the rotatable storage medium.

12. A system according to claim 1, wherein:

5 the write element writes at least a portion of the second servo burst before trimming at least a portion of the first servo burst.

13. A system for writing position information to a rotating medium, comprising:

10 a rotatable medium capable of storing information written to the rotatable medium, the rotatable medium having an inner diameter and an outer diameter;

 a write element capable of writing information to the rotatable medium; and

15 a control mechanism adapted to rotate the rotatable medium and position the write element relative to the rotatable medium, such that the write element can:

 write a plurality of servo tracks to a rotatable storage medium, wherein the position of each servo track is defined by an edge of a first servo burst and a complimentary edge of a second burst, and wherein the first servo burst is written in a first revolution of the rotatable storage medium, and the first burst is trimmed on a second revolution, the second servo burst also being written on the second revolution; and

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 write a plurality of data tracks to a rotatable storage medium, wherein the position of each data track is defined by an edge of a third servo burst and a complimentary edge of a fourth servo burst, and wherein the third servo burst is written in a third revolution of the rotatable storage medium, the third servo burst is

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trimmed in a fourth revolution, and at least a portion of the fourth servo burst is written in one of the fourth revolution or a subsequent revolution, the pass used to write at least a portion of the fourth servo burst being determined by the location of the fourth servo burst relative to at least one of the inner diameter and outer diameter.

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14. A system for writing position information to a rotating medium, comprising:

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a rotatable medium capable of storing information written to the rotatable medium, the rotatable medium having an inner diameter and an outer diameter;

a write element capable of writing information to the rotatable medium; and

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a control mechanism adapted to rotate the rotatable medium and position the write element relative to the rotatable medium, such that the write element can:

write a plurality of servo tracks to a rotatable storage medium, wherein the position of each servo track is defined by an edge of a first servo burst and a complimentary edge of a second burst, and wherein the first servo burst is written in a first revolution of the rotatable storage medium, and at least a portion of the first burst is trimmed on a second revolution, the second servo burst being written in one of the second revolution or a subsequent revolution, the pass used to write at least a portion of the second servo burst being determined by the location of the second servo burst relative to at least one of the inner diameter and outer diameter; and

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5 write a plurality of data tracks to a rotatable storage medium,
wherein the position of each data track is defined by
an edge of a third servo burst and a complimentary
edge of a fourth servo burst, and wherein the third
servo burst is written in a third revolution of the
rotatable storage medium, the third servo burst is
trimmed in a fourth revolution, and at least a portion
of the fourth servo burst is written in one of the fourth
revolution or a subsequent revolution, the pass used
10 to write at least a portion of the fourth servo burst
being determined by the location of the fourth servo
burst relative to at least one of the inner diameter and
outer diameter.

15 15. A system for writing position information to a magnetic hard disk,
comprising:

means for writing at least a portion of a first servo burst during a first
pass of a write element over a rotating medium;

20 means for trimming at least a portion of a first servo burst during a
second pass of the write element; and

means for writing at least a portion of a second servo burst during
one of the second pass and a third pass of the write element, the pass
used to write at least a portion of the second servo burst being determined
by the location of the second servo burst relative to at least one of the inner
25 diameter and outer diameter.